Sample Worksheet for Estimating the Annual and Average Cost of Needlesticks and Other Sharps Related Injuries

Step 1. Time Costs for Initial Reporting, Assessing, and Treating Exposed Healthcare Personnel **Annual Cost**

A. Cost of exposed employee lost time

a. Average work time lost for initial assessment _____ (Hours/Minutes)

b. Average hourly salary of professional nurse* $_____

c. Number of injuries reported in previous year _____ (a x b x c = Annual cost employee lost time) ⇨ $_____

*Since this group of healthcare professionals is the most frequent recipient of needlestick injuries, using an average hourly salary provides a reasonable surrogate for estimating work time lost. However, healthcare organizations can estimate this more precisely by using salary figures from specific occupational groups that sustain occupational exposures.

B. Cost of healthcare provider time to evaluate and treat exposed employee **Annual Cost**

a. Average professional time required for initial exposure assessment _____ (Hours/Minutes)

b. Average hourly salary of practitioner who manages exposures $_____

c. Number of injuries reported in previous year _____ (a x b x c = Annual cost provider time) ⇨ $_____

C. Cost of other providers' time involved in initial assessment **Annual Cost**

	a. Average Time Spent (Hours/Min)	b. Average Hourly Salary	c. # Reported Injuries	Annual Cost (a x b x c)
Supervisor	_____	$_____	_____	$_____
Infection control	_____	$_____	_____	$_____
Occupational health*	_____	$_____	_____	$_____
Other	_____	$_____	_____	$_____

(Add annual cost together to get total other provider annual cost) ⇨ $_____

*Administrative time (e.g., recording, notification)

D. Cost of healthcare provider time to evaluate source patient **Annual Cost**

a. Average professional time required for initial source assessment and counseling and testing _____ (Hours/Minutes)
(Consider people who counsel the patient, assess the medical record, and draw blood)

b. Average hourly salary of practitioner who evaluates source $_____

c. Number of source patients assessed in previous year _____

(a x b x c = Annual cost provider time) ⇨	$_____

Step 2. Determine the cost of baseline and follow-up laboratory testing.

Annual Cost

A-1. Cost of baseline employee testing

Type of Test	Cost/Test	# Employees Tested*	Annual Cost/Test
HIV antibody	$_____	x _____ =	$_____
Hepatitis C antibody	$_____	x _____ =	$_____
Hepatitis B antibody	$_____	x _____ =	$_____

*Can be obtained directly or by estimating the proportion of exposed employees tested

(Add together annual cost of each test to arrive at total annual cost of baseline testing) ⇨ $_____

Annual Cost

A-2. Cost of follow-up employee testing.

Type of Test	Cost/Test	# Employees Tested*	Annual Cost/Test
HIV antibody	$_____	x _____ =	$_____
Hepatitis C antibody	$_____	x _____ =	$_____
HCV PCR	$_____	x _____ =	$_____
ALT	$_____	x _____ =	$_____
Other	$_____	x _____ =	$_____

(Add together annual cost of each test to get total annual cost of follow-up testing) ⇨ $_____

*Add actual or estimated number of tests performed at 6 weeks, 12 weeks, 6 months (also 1 year if follow-up is extended)

B. Source patient testing (If the healthcare facility does not pay directly for testing the source patient, do not include in cost estimates)

Annual Cost

Type of Test	Cost/Test	# Patients Tested*	Annual Cost/Test

HIV antibody	$_____	**x** _____	=	$_____
Hepatitis C antibody	$_____	**x** _____	=	$_____
Hepatitis B profile	$_____	**x** _____	=	$_____

*Can be obtained directly or by estimating the proportion of exposed employees tested

(Add together annual cost of each test to get total annual cost of source testing) ⇨ $_____

Step 3. Determine the cost of postexposure prophylaxis (PEP) and preventing and monitoring for drug side effects.

A. Cost of PEP

Drugs used for HIV PEP	Cost/Day	# Doses Dispensed in Previous Year*	Annual Cost
Zidovudine (AZT) (600 mg q.d.)	$_____	x _____	$_____
Lamivudine (3TC) (300 mg q.d.)	$_____	x _____	$_____
Combivir (AZT/3TC) (2 tab/day)	$_____	x _____	$_____
Indinavir (Crixivan) (2400 mg/day)	$_____	x _____	$_____
Nelfinavir (Viracept) (2250 mg/day)	$_____	x _____	$_____
Didanosine (Videx) (400 mg/day)	$_____	x _____	$_____
Stavudine (Zerit) (80 mg/day)	$_____	x _____	$_____
Other PEP drug	$_____	x _____	$_____

Annual Cost

B. Cost of other postexposure agents used to prevent virus transmission

Hepatitis B Immune Globulin	$_____	x _____	$_____
Other: _____	$_____	x _____	$_____

Annual Cost

(Add together annual cost of each drug to get total annual cost of PEP) ⇨ $_____

*Count only doses prescribed for PEP

C. Cost of preventing and monitoring PEP side effects

	Cost/Prescription in Previous	# Prescriptions Issued	Annual Cost
Antimotility prescription	$_____	x _____	$_____
Antiemetic prescription	$_____	x _____	$_____

Annual Cost

Type of Test	Cost/Test	# Employees Tested*	Annual Cost
Complete blood count	$_____	x _____	$_____
Renal profile	$_____	x _____	$_____
Hepatic profile	$_____	x _____	$_____

*Also can use actual number of tests performed if that information is available

(Add together each annual cost to obtain total annual cost of preventing and monitoring PEP side effects) ⇨ **$**_____

D. Cost of employee lost time because of drug side effects

a. Average number of work days lost because of drug side effects _____

b. Average hourly salary of professional nurse* $_____

c. Number of workers who lost time because of drug side effects** (a x b x c = Annual cost employee lost time) ⇨ $_____

* Since this group of healthcare professionals is the most frequent recipient of needlestick injuries, using an average hourly salary provides a reasonable surrogate for estimating work time lost. However, healthcare organizations can estimate this more precisely by using salary figures from specific occupational groups that sustain occupational exposures.

** An alternative method for performing this calculation is to obtain the total number of days lost due to drug side effects and multiply that by the average hourly salary.

Step 4. Calculate total estimated annual and average injury costs.

Total annual cost of percutaneous injuries $_____. (Sum of all right hand column values)

Average cost of percutaneous injuries $_____. (Total annual cost ÷ annual # injuries)